In the Claims:

5   This listing of claims will replace all prior
versions, and listings, of claims in the application.
Please add new claims 23-37.

We claim:

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1.   **(original)** A data switch comprising an input
port, an output port and a memory coupled therebetween,
characterized in that the data switch generates a discard
processing indicator for a packet received on the input
15   port, segments the packet into ones of units, and appends
the discard processing indicator to the ones of units,
further characterized in that the data switch compares the
discard processing indicator appended to the ones of units
with a discard criterion to determine whether to discard
20   the ones of units.

2.   **(original)** The data switch of claim 1, wherein
the discard processing indicator is a random number.

25   3.   **(original)** The data switch of claim 1 further
characterized in that the data switch stores the ones of
units in the memory if the units are determined not to be
discarded.

30   4.   **(original)** The data switch of claim 1 further
characterized in that the discard criterion is dynamically
selected in accordance with a utilization level of an
output queue to which the ones of units are destined.

35   5.   **(original)** The data switch of claim 4 further
characterized in that the data switch appends a timestamp

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to the ones of units for determining a utilization level of the output queue at a time indicated by the timestamp.

6.   **(original)** The data switch of claim 1, wherein the ones of units are units of a fixed length.

7.   **(original)** A data switch comprising:

an input port generating a tag including a discard processing indicator for appending to ones of input units segmented from an input data packet;

an output port including one or more output queues, each output queue storing an output unit;

a switch fabric operative between the input port and the output port, the switch fabric including a congestion controller retrieving a level of utilization of an output queue to which a particular input unit is destined and selecting the input unit for discard or not based on the discard processing indicator in the tag appended to the input unit.

8.   **(original)** The data switch of claim 7 wherein the switch fabric includes a memory storing non-discarded units for forwarding to the output port.

9.   **(original)** The data switch of claim 7, wherein the congestion controller compares the discard processing indicator with a discard criterion selected in accordance with the utilization level of the output queue.

10.   **(original)** The data switch of claim 7, wherein the utilization level of the output queue is selected based on a timestamp included in the tag.

11.   **(original)** The data switch of claim 7, wherein the discard processing indicator is a random number.

12. (original) The data switch of claim 7, wherein the output port transmits to the switch fabric congestion status updates including queue utilization levels for the one or more output queues.

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13. (original) A method for congestion control in a data switch including an input port, an output port, and a memory coupled therebetween, the method comprising:

generating a number for a packet received on the input
10 port;

segmenting the packet into ones of units;

appending the number to the ones of units; and

individually comparing the number appended to the ones of units with a discard criterion for determining whether
15 to discard the packet.

14. (original) The method of claim 13, wherein the number is a random number.

20 15. (original) The method of claim 13 further comprising storing the ones of units in the memory if the units are determined not to be discarded.

16. (original) The method of claim 13, further
25 comprising selecting a discard criterion in accordance with a utilization level of an output queue to which the ones of units are destined.

17. (original) The method of claim 16 further
30 comprising the step of appending a timestamp to the ones of units for determining a utilization level of the output queue at a time indicated by the timestamp.

18. (original) A method for congestion control in a
35 data switch, the method comprising:

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generating a tag including a discard processing
indicator;

appending the tag with the discard processing
indicator to each unit segmented from an input data packet;

5   determining a level of utilization of an output queue
to which a particular unit of the input data packet is
destined;

determining a discard criterion in accordance with the
determined level of utilization; and

10   discarding the particular unit based on a conformance
of the discard processing indicator in the tag appended to
the particular unit with the discard criterion.

15   19.   **(original)** The method of claim 18, wherein the
determining of the level of utilization of the output queue
comprises selecting a level of utilization for the output
queue based on a timestamp included in the tag appended to
the particular unit.

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20.   **(original)** The method of claim 18, wherein the
discard processing indicator is a random number.

21.   **(original)** The method of claim 18 further
25   comprising transmitting to the switch fabric congestion
status updates including a queue utilization level of the
output queue.

22.   **(original)** A data switch comprising an input
30   port, an output port and a memory coupled therebetween,
characterized in that the data switch generates a uniform
discard processing indicator for a packet received on the
input port, segments the packet into ones of units, and
appends the uniform discard processing indicator to the
35   ones of units, further characterized in that the data
switch compares for each of the ones of the units the

uniform discard processing indicator appended thereto with a uniform discard criterion for ensuring that the ones of units receive a uniform discard decision.

5   23.   **(new)** A data switch comprising an input port, an output port and a memory coupled therebetween, characterized in that the data switch assigns a discard processing indicator for a packet received on the input port, segments the packet into ones of units and compares

10   for each of the ones of the units the discard processing indicator with a discard criterion to determine whether to discard the each of the ones of the units.

          24.   **(new)** The data switch of claim 23, wherein the

15   discard processing indicator is appended to the ones of units.

          25.   **(new)** The data switch of claim 23, wherein the discard processing indicator is a random number.

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          26.   **(new)** The data switch of claim 23 further characterized in that the data switch stores the ones of units in the memory if the units are determined not to be discarded.

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          27.   **(new)** The data switch of claim 23 further characterized in that the discard criterion is dynamically selected in accordance with a utilization level of an output queue to which the ones of units are destined.

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          28.   **(new)** The data switch of claim 23 further characterized in that the data switch appends a timestamp to the ones of units for determining a utilization level of the output queue at a time indicated by the timestamp.

29. **(new)** The data switch of claim 23, wherein the ones of units are units of a fixed length.

5   30. **(new)** A data switch comprising an input port, an output port and a memory coupled therebetween, characterized in that the data switch generates a discard processing indicator for a packet received on the input port, segments the packet into ones of units, and

10   associates the discard processing indicator with the ones of units, further characterized in that the data switch compares the discard processing indicator associated with the ones of units with a discard criterion to determine whether to discard the ones of units.

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31. **(new)** The data switch of claim 30 further characterized in that the discard criterion is dynamically selected in accordance with a utilization level of an output queue to which the ones of units are destined and

20   the data switch associates a timestamp with the ones of units for determining a utilization level of the output queue at a time indicated by the timestamp.

32. **(new)** A data switch comprising:

25   an input port generating a tag including a discard processing indicator for associating with ones of input units segmented from an input data packet;
      an output port including one or more output queues, each output queue storing an output unit;

30   a switch fabric operative between the input port and the output port, the switch fabric including a congestion controller retrieving a level of utilization of an output queue to which a particular input unit is destined and selecting the input unit for discard or not based on the

discard processing indicator in the tag associated with the input unit.

33. **(new)** A method for congestion control in a data switch including an input port, an output port, and a memory coupled therebetween, the method comprising:

generating a number for a packet received on the input port;

segmenting the packet into ones of units;

associating the number with the ones of units; and

individually comparing the number associated with the ones of units with a discard criterion for determining whether to discard the packet.

34. **(new)** The method of claim 33, further comprising selecting a discard criterion in accordance with a utilization level of an output queue to which the ones of units are destined and associating a timestamp with the ones of units for determining a utilization level of the output queue at a time indicated by the timestamp.

35. **(new)** A method for congestion control in a data switch, the method comprising:

generating a tag including a discard processing indicator;

associating the tag with the discard processing indicator with each unit segmented from an input data packet;

determining a level of utilization of an output queue to which a particular unit of the input data packet is destined;

determining a discard criterion in accordance with the determined level of utilization; and

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discarding the particular unit based on a conformance
of the discard processing indicator in the tag associated
with the particular unit with the discard criterion.

36. **(new)** The method of claim 35, wherein the
determining of the level of utilization of the output queue
comprises selecting a level of utilization for the output
queue based on a timestamp included in the tag associated
with the particular unit.

37. **(new)** A data switch comprising an input port, an
output port and a memory coupled therebetween,
characterized in that the data switch generates a uniform
discard processing indicator for a packet received on the
input port, segments the packet into ones of units, and
associates the uniform discard processing indicator with
the ones of units, further characterized in that the data
switch compares for each of the ones of units the uniform
discard processing indicator associated thereto with a
uniform discard criterion for ensuring that the ones of
units receive a uniform discard decision.